STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 164833

TO: Jeffrey Parkin
Location: REM-3D39/3C18
Art Unit: 1648
Thursday, September 08, 2005

Case Serial Number: 09/647981

From: Edward Hart
Location: Biotech-Chem Library
REM-1A55
Phone: 571-272-2512

edward.hart@uspto.gov

Search Notes

Examiner Parkin,

Here are the results of the search you requested.

Please feel free to contact me if you have any questions.

Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.

- If you encounter an accession number from an older search run against UniProt (results file extension **.rup)** that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

  http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

STIC-Biotech/ChemLib 16 4833

From: Parkin, Jeffrey
Sent: Tuesday, September 06, 2005 2:23 PM
To: STIC-Biotech/ChemLib
Subject: Sequence Search for U.S. Serial No. 09/647,981

Please search SEQ ID NO.: 10 from the aforementioned application (U.S. Serial No. 09/647,981; Sia et al.) v. all relevant databases. Place results on BOTH PAPER and ELECTRONIC FORMAT (i.e., disk, e-mail, etc.).

Thanks!

JSP
AU 1648
REM 3D39
2-0908

****
STAFF USE ONLY

Searcher:_____
Searcher Phone: 2-
Date Searcher Picked up: 9/7/05
Date Completed: 9/8/05
Searcher Prep/Rev. Time:__
Online Time:_____

****
Type of Search

NA#:_____ AA#:__1__
Interference:____ SPDI:___
S/L:_____ Oligomer:_____
Encode/Transl:_____
Structure#:_____ Text:___
Inventor:____ Litigation:___

****
Vendors and cost where applicable
STN:_____
DIALOG:_____
QUESTEL/ORBIT:_____
LEXIS/NEXIS:_____
SEQUENCE SYSTEM: 4.20
WWW/Internet:_____
Other(Specify):_____

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 8, 2005, 03:05:31 ; Search time 165 Seconds
(without alignments)
30.472 Million cell updates/sec

Title: US-09-647-981A-10
Perfect score: 74
Sequence: 1 TPPAYRPPNAPIL 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	74	100.0	13	2	AAR33501	Aar33501 T helper
2	74	100.0	13	2	AAR78929	Aar78929 HBc 128-1
3	74	100.0	13	2	AAW39439	Aaw39439 Mouse H-2
4	74	100.0	13	2	AAW50117	Aaw50117 Pan DR bi
5	74	100.0	13	3	AAY52556	Aay52556 HBV core
6	74	100.0	13	4	AAG64542	Aag64542 T-helper
7	74	100.0	13	4	AAE02681	Aae02681 Hepatitis
8	74	100.0	13	4	AAE00471	Aae00471 Hepatitis
9	74	100.0	13	4	AAG62426	Aag62426 Immunogen
10	74	100.0	13	4	AAB82775	Aab82775 Hepatitis
11	74	100.0	13	4	AAU00614	Aau00614 H-2 I-Ab-
12	74	100.0	13	5	AAU70851	Aau70851 Hepatitis
13	74	100.0	13	5	ABB76787	Abb76787 HBV pepti
14	74	100.0	13	5	ABG62860	Abg62860 Antigenic
15	74	100.0	13	5	ABP52344	Abp52344 TH epitop
16	74	100.0	13	5	ABP52307	Abp52307 T helper
17	74	100.0	13	5	ABP52350	Abp52350 TH epitop
18	74	100.0	13	5	ABP51503	Abp51503 T helper
19	74	100.0	13	6	ABR44095	Abr44095 HBV core
20	74	100.0	13	6	ABP98778	Abp98778 HBV core
21	74	100.0	13	6	AAO22990	Aao22990 p128-40 I
22	74	100.0	13	6	ABU63009	Abu63009 HBV core
23	74	100.0	13	7	ADC21494	Adc21494 Hepatitis
24	74	100.0	13	7	ADC85105	Adc85105 HBV assoc
25	74	100.0	13	7	ADD35647	Add35647 Hepatitis
26	74	100.0	13	7	ADG38596	Adg38596 Hepatitis
27	74	100.0	13	7	ADI64650	Adi64650 HBV core
28	74	100.0	13	8	ADK14662	Adk14662 Hepatitis
29	74	100.0	13	8	ADM73996	Adm73996 Specifici
30	74	100.0	13	8	ADN12176	Adn12176 Amino aci
31	74	100.0	13	8	ADR11760	Adr11760 HLA-A2.1
32	74	100.0	14	3	AAY52571	Aay52571 HBV core
33	74	100.0	15	2	AAW01776	Aaw01776 Hepatitis
34	74	100.0	15	2	AAY53554	Aay53554 HBV core
35	74	100.0	16	6	AAE33938	Aae33938 Hepatitis
36	74	100.0	18	6	AAE33958	Aae33958 Hepatitis
37	74	100.0	20	4	AAB67642	Aab67642 Peptide c
38	74	100.0	20	5	AAU70872	Aau70872 Hepatitis
39	74	100.0	20	7	ADC85126	Adc85126 Sequence
40	74	100.0	20	8	ADK14683	Adk14683 Hepatitis
41	74	100.0	21	1	AAP80955	Aap80955 T cell st
42	74	100.0	21	2	AAR82579	Aar82579 Hepatitis
43	74	100.0	21	2	AAW05605	Aaw05605 Hepatitis
44	74	100.0	21	2	AAY13806	Aay13806 Hepatitis
45	74	100.0	21	3	AAY58772	Aay58772 Unidentif

ALIGNMENTS

RESULT 1
AAR33501
ID AAR33501 standard; peptide; 13 AA.
XX
AC AAR33501;
XX
DT 25-MAR-2003 (revised)
DT 01-JUL-1993 (first entry)
XX
DE T helper peptide HBc 128-140.
XX
KW Hepatitis B virus; HBV; core antigen; MHC class I; chronic; acute;
KW infection; identification; HLA-restricted.
XX
OS Synthetic.
XX
PN WO9303764-A1.
XX
PD 04-MAR-1993.
XX
PF 26-AUG-1992; 92WO-US007218.
XX
PR 26-AUG-1991; 91US-00749568.
PR 29-JAN-1992; 92US-00827682.
PR 27-APR-1992; 92US-00874491.
XX
PA (CYTE-) CYTEL CORP.
XX
PI Vitiello MA, Chesnut RW;
XX
DR WPI; 1993-093728/11.
XX
PT Cytotoxic T-lymphocyte stimulating peptide(s) - derived from hepatitis B
PT virus useful for treating, preventing and diagnosing infection.
XX
PS Disclosure; Page 21; 89pp; English.
XX
CC This is a T helper epitope peptide, the sequence of which is derived from
CC hepatitis B virus (HBV) core antigen amino acids 128-140. It may be used
CC in a conjugate with cytotoxic T-lymphocyte stimulating (CTL) peptides to
CC enhance an individual's immunity by providing cell-mediated immunity and
CC protective antibodies. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 2; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13
```

RESULT 2
AAR78929
ID AAR78929 standard; peptide; 13 AA.
XX
AC AAR78929;
XX
DT 25-MAR-2003 (revised)
DT 27-MAR-1996 (first entry)
XX
DE HBc 128-140 cytotoxic T lymphocyte epitope.
XX
KW HBc 128-140; cytotoxic T; CTL; epitope; helper T; HTL; cell; lymphocyte;
KW antigens; treatment; disease prevention; hepatitis B.
XX
OS Hepatitis B virus.
XX
PN WO9522317-A1.
XX
PD 24-AUG-1995.
XX
PF 16-FEB-1995; 95WO-US002121.
XX
PR 16-FEB-1994; 94US-00197484.
XX
PA (CYTE-) CYTEL CORP.
XX
PI Vitiello MA, Chesnut RW, Sette AD, Celis E, Grey H;
XX
DR WPI; 1995-302545/39.
XX
PT Compsn. inducing cytotoxic T lymphocyte response to pref. viral,
PT bacterial, parasitic or tumour antigens - useful in the treatment and
PT prevention of diseases associated with the antigen e.g. hepatitis B.
XX
PS Example 4; Page 52; 109pp; English.
XX
CC A compsn. which induces a cytotoxic T lymphocyte (CTL) response to a
CC hepatitis B virus (HBV) antigen (Ag) in a mammal comprises, a HBV CTL Ag
CC response inducing peptide (i.e. AAR78929) and a lipid conjugated helper T
CC cell inducing peptide. The compsn. is useful in the treatment and
CC prevention of hepatitis B. (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 13 AA;

```
  Query Match             100.0%;  Score 74;  DB 2;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0015;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13
```

RESULT 3
AAW39439
ID AAW39439 standard; peptide; 13 AA.
XX
AC AAW39439;
XX
DT 11-JUN-1998 (first entry)
XX
DE Mouse H-2 I-Ab-restricted HBV core antigen-derived T helper epitope.
XX
KW T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatablilty complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.
XX
OS Synthetic.
OS Mus sp.
XX
PN WO9741440-A1.
XX
PD 06-NOV-1997.
XX
PF 28-APR-1997; 97WO-NL000229.
XX
PR 26-APR-1996; 96EP-00201145.
PR 23-DEC-1996; 96EP-00203670.
XX
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
XX
PI Van Der Burg SH, Kast WM, Toes REM, Offringa R, Melief CJM;
XX
DR WPI; 1997-549891/50.
XX
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells.
XX
PS Example 2; Page 21; 109pp; English.
XX
CC Peptides AAW39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens.
CC Peptide AAW39439 is a mouse H-2 I-Ab restricted HBV core antigen-derived
CC T helper epitope which is injected into HLA-A*0201Kb transgenic mice. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I peptide.
CC The stability of binding of the peptide and MHC (major histocompatablilty
CC complex) class I molecule is measured on intact human B cells carrying
CC the MHC molecule at their cell surfaces. The method can be used to select
CC peptide epitopes for generating vaccines against a disease associated
CC with the polypeptide, e.g. cancers or AIDS. The peptide epitopes are
CC especially T-cell peptide epitopes with strong anti-tumour and anti-viral
CC immune responses
XX
SQ Sequence 13 AA;

```
  Query Match             100.0%;  Score 74;  DB 2;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0015;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13
```

RESULT 4
AAW50117
ID AAW50117 standard; peptide; 13 AA.
XX
AC AAW50117;
XX
DT 30-JUN-1998 (first entry)
XX
DE Pan DR binding peptide (14).
XX
KW Pan DR binding peptide; antigen binding site; MHC molecule; DR locus.
XX
OS Synthetic.
XX
PN US5736142-A.
XX
PD 07-APR-1998.
XX
PF 14-SEP-1994; 94US-00305871.
XX
PR 14-SEP-1993; 93US-00121101.
XX
PA (CYTE-) CYTEL CORP.

XX
PI Sidney J, Sette A, Alexander JL, Gaeta F, Grey HM;
XX
DR WPI; 1998-239154/21.
XX
PT Peptides that bind to MHC molecules of all DR alleles - inhibiting or
PT inducing MHC Class II mediated activation of T cells.
XX
PS Example 5; Col 35-36; 29pp; English.
XX
CC The present sequence, a pan DR binding peptide, is capable of binding
CC antigen binding sites on MHC molecules, which are encoded by most of the
CC alleles of a DR locus. The peptide can be used to inhibit or induce MHC
CC Class II mediated activation of T-cells or helper T-cells, which
CC themselves mediate a CTL response. The peptide can be used in mammals,
CC especially humans, to inhibit T-cell-mediated events involved in
CC allograft rejection, allergic responses and autoimmunity and as a vaccine
CC adjuvant for enhancing an immune response against an administered
CC immunogen. The peptide can be used with other immunogens to treat, e.g.
CC prostate cancer, hepatitis B, hepatitis C, AIDS, renal and cervical
CC carcinoma, lymphoma, CMV and condylyloma acuminatum
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 2; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 5
AAY52556
ID AAY52556 standard; peptide; 13 AA.
XX
AC AAY52556;
XX
DT 06-AUG-2003 (revised)
DT 28-FEB-2000 (first entry)
XX
DE HBV core antigen MHC class II epitope, encoded by I80T fusion gene.
XX
KW Chimeric; pan DR epitope; expression vector; promoter;
KW major histocompatibility complex; MHC; targetting; peptide; epitope;
KW antigen; presentation; class I; cytosolic pathway; endoplasmic reticulum;
KW class II; extracellular antigen; endocytic pathway; helper T lymphocyte;
KW HTL; universal epitope; cytotoxic T lymphocyte; CTL; immune response;
KW immunogenicity; assay; vaccine; immunity; infection; pathogen; virus;
KW HIV; HBV; HCV; hepatitis B; hepatitis C; bacterium; protozoan;
KW tumour cell; autoimmune disease; activation; antiviral; antimalarial;
KW immunoprotective; core antigen.
XX
OS Synthetic.
OS Hepatitis B virus.
XX
PN WO9958658-A2.
XX
PD 18-NOV-1999.
XX
PF 13-MAY-1999; 99WO-US010646.
XX
PR 13-MAY-1998; 98US-00078904.
PR 15-MAY-1998; 98US-0085751P.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Fikes JD, Hermanson GG, Sette A, Ishioka GY, Livingston B;
PI Chesnut RW;
XX
DR WPI; 2000-039103/03.
XX
PT Expression vectors encoding major histocompatibility targeting sequence,
PT used as, e.g. tumor vaccines.
XX
PS Example 1; Page 36; 130pp; English.
XX
CC This sequence represents a hepatitis B virus (HBV) core antigen MHC class
CC II epitope, encoded by the I80T fusion gene (AAZ38617), used in an
CC exemplification of the present invention. The invention relates to a
CC novel expression vector comprising a promoter operably linked to a fusion
CC gene encoding a major histocompatibility complex (MHC) targetting
CC sequence, and two or more heterologous peptide epitopes. The MHC
CC targetting sequence may be a class I targetting sequence, which directs
CC an MHC class I epitope to a cytosolic pathway or to the endoplasmic
CC reticulum, or an MHC class II targetting sequence, which directs
CC extracellular antigens to enter the endocytic pathway to be processed
CC into antigen peptides for presentation on MHC class II molecules. The
CC heterologous epitopes may comprise either helper T lymphocyte (HTL)
CC epitopes, or a cytotoxic T lymphocyte (CTL) epitope and a universal HTL
CC epitope such as a pan DR epitope (PADRE). The vectors are useful for
CC stimulating an immune response in vivo, as well as for use in assaying
CC the human immunogenicity of a human T cell peptide epitope in vivo in a
CC non-human mammal. They provide a nucleic acid vaccine for enhancing
CC immunity against infectious pathogens, such as viruses (e.g., HIV,
CC hepatitis B (HBV and hepatitis C (HCV)) bacteria, protozoa (e.g.,
CC Plasmodium falciparum, the cause of malaria) and also tumour cells and
CC autoimmune diseases. Universal MHC class II epitopes are advantageously
CC combined with other MHC class I and class II epitopes to increase the
CC number of cells that are activated in response to a given antigen and
CC provide a broader population coverage of MHC-reactive alleles. (Updated
CC on 06-AUG-2003 to correct OS field.)
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 3; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 6
AAG64542
ID AAG64542 standard; peptide; 13 AA.
XX
AC AAG64542;
XX
DT 22-OCT-2001 (first entry)
XX
DE T-helper epitope peptide.
XX
KW Cytotoxic T cell lymphocyte; CTL; anti-HIV; viral disease; HIV;
KW human immunodeficiency virus; vaccine; T-helper.
XX
OS Synthetic.
XX
PN WO200155177-A2.
XX
PD 02-AUG-2001.
XX
PF 29-JAN-2001; 2001WO-DK000059.
XX
PR 28-JAN-2000; 2000EP-00610017.
PR 31-JAN-2000; 2000US-0179333P.
XX
PA (STAT-) STATENS SERUM INST.
XX
PI Fomsgaard A, Brunak S, Buus S, Corbet S, Lauemoller SL, Hansen J;
XX
DR WPI; 2001-476184/51.
XX
PT The generation of cytotoxic T cell lymphocytes epitopes for use in anti-

PT HIV vaccines.
XX
PS Example 7; Page 42; 383pp; English.
XX
CC The invention relates to identification of cytotoxic T cell lymphocyte
CC (CTL) epitopes (AAM22116-AAM23484) that generate anti-HIV activity. CTL
CC are a major protective mechanism against viral diseases. Antibodies may
CC neutralise extracellular human immunodeficiency virus (HIV) and limit or
CC prevent infection of cells in the host, but CTL will limit viral
CC production by killing the cell. The CTL epitopes are useful in medicine,
CC in the manufacture of vaccines or diagnostic agents. The present sequence
CC is that of a T-helper epitope peptide useful to the invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 7
AAE02681
ID AAE02681 standard; peptide; 13 AA.
XX
AC AAE02681;
XX
DT 06-AUG-2001 (first entry)
XX
DE Hepatitis B virus HBVc helper peptide.
XX
KW Cytostatic; antibacterial; antifungal; gene therapy; vaccine; antiviral;
KW tumour; epitope; glycoprotein; hepatitis B virus; HBV; immune response;
KW CTL; cytotoxic T lymphocyte; HLA; human leucocyte antigen.
XX
OS Hepatitis B virus.
XX
PN WO200127291-A1.
XX
PD 19-APR-2001.
XX
PF 29-SEP-2000; 2000WO-EP009902.
XX
PR 12-OCT-1999; 99US-0158356P.
XX
PA (INSP) INST PASTEUR.
XX
PI Firat H, Lemonnier F, Langlade-Demoyen P;
XX
DR WPI; 2001-282038/29.
XX
PT New polynucleotide comprising at least one viral, fungal, bacterial, or
PT tumor epitope of an antigen, capable of inducing a cellular response.
XX
PS Example 1; Page 23; 70pp; English.
XX
CC The invention relates to polynucleotide containing at least a part of the
CC coding sequence of the middle glycoprotein of hepatitis B virus (HBV) in
CC which is inserted a DNA sequence coding for an epitope comprising at
CC least one viral, fungal, bacterial, or tumour epitope of an antigen,
CC capable of inducing a cellular response. Nucleic acids and compositions
CC of the invention are useful for inducing in vivo a CTL (cytotoxic T
CC lymphocyte) response against several epitopes of one or more, bacterial,
CC viral, fungal, or tumour antigens. A composition of the invention
CC produces an immune response against HIV antigen and are used in the
CC production of vaccines. The polynucleotides of the invention are also
CC used in gene therapy. The present sequence is hepatitis B virus helper
CC peptide. This peptide is co-injected with human epitopes in order to
CC elicit HLA (human leucocyte antigen) -A2.1-restricted CTL response in
CC mice
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 8
AAE00471
ID AAE00471 standard; peptide; 13 AA.
XX
AC AAE00471;
XX
DT 19-JUN-2001 (first entry)
XX
DE Hepatitis B virus core (HBVc) tumour epitopic peptide.
XX
KW Tumour epitope; cytostatic; immunostimulant; gene therapy;
KW middle glycoprotein; Hepatitis B virus core; cytotoxic response;
KW immune response; cytotoxic T lymphocyte; CTL; HBVc; HLA;
KW human leucocyte antigen.
XX
OS Hepatitis B virus.
XX
PN WO200123577-A2.
XX
PD 05-APR-2001.
XX
PF 29-SEP-2000; 2000WO-EP009900.
XX
PR 30-SEP-1999; 99US-0156945P.
XX
PA (INSP) INST PASTEUR.
XX
PI Firat H, Lemonnier F, Langlade-Demoyen P, Michel M, Suhrbier AA;
XX
DR WPI; 2001-266164/27.
XX
PT Novel polynucleotide having DNA sequence encoding tumor antigen epitope
PT inserted in part of coding sequence of middle glycoprotein of hepatitis B
PT virus, used to induce immune response against tumor-specific antigen.
XX
PS Example 1; Page 13; 36pp; English.
XX
CC The present invention relates to an isolated or purified polynucleotide
CC containing a DNA sequence coding for at least one tumour epitope of a
CC tumour antigen inserted into part of the coding sequence of the middle
CC glycoprotein of the Hepatitis B virus (HBV). The polynucleotide is useful
CC for optionally evaluating cytotoxic responses in the individual's
CC lymphocyte population. It induces an immune response against at least one
CC tumour specific antigen or tissue specific antigen. The vector comprising
CC the polynucleotide induces in vivo, cellular and/or humoral immune
CC response. The composition comprising the polynucleotide induces in vivo,
CC cytotoxic T lymphocyte (CTL) against one or more antigens or epitopes
CC present on the hybrid protein. The polynucleotide is also useful in gene
CC therapy. The present sequence is a Hepatitis B virus core (HBVc) tumour
CC epitopic peptide. This peptide elicits HLA (human leucocyte antigen)-A2.1
CC - restricted CTL response in mice
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 9
AAG62426
ID AAG62426 standard; peptide; 13 AA.
XX
AC AAG62426;
XX
DT 03-SEP-2001 (first entry)
XX
DE Immunogenic peptide HBV core SEQ ID 30.
XX
KW Class I epitope; immunogenic; heteroclitic analogue; immune response;
KW antigen display; viral disease; cancer.
XX
OS Synthetic.
XX
PN WO200136452-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-US031856.
XX
PR 18-NOV-1999; 99US-0166529P.
PR 06-OCT-2000; 2000US-0239008P.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Tangri S, Sette A, Ishioka G;
XX
DR WPI; 2001-355609/37.
XX
PT Enhancing immunogenicity of peptide containing class I epitope, useful
PT for treating cancer, comprises providing (semi-)conservative amino acid
PT substitutions at specified positions of these epitopes.
XX
PS Disclosure; Fig 1A; 96pp; English.
XX
CC This invention relates to a method of enhancing the immunogenicity of a
CC peptide, where the peptide contains a class I epitope. The invention
CC includes methods for preparing peptides containing epitopes which have
CC enhanced ability to effect an immune response (compared to wild-type
CC epitopes). The peptides are referred to as heteroclitic analogues. The
CC method is useful for eliciting an immune response by contacting CTLs with
CC the immunogenically enhanced peptide in vitro in the presence of an
CC antigen presenting cell, or by administering to a subject a nucleic acid
CC molecule comprising a nucleotide sequence encoding the peptide. The
CC peptides are useful as reagents to evaluate an immune response and the
CC efficacy of the vaccine, and for making antibodies. The heteroclitic
CC analogues are useful in immunological compositions for the treatment of
CC viral diseases, cancer, and other conditions which are characterised by
CC displayed antigens on target cells. The present sequence represents a
CC class I epitope which may be used in the method of the invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 10
AAB82775
ID AAB82775 standard; protein; 13 AA.
XX
AC AAB82775;
XX
DT 06-AUG-2003 (revised)
DT 29-OCT-2001 (first entry)
XX
DE Hepatitis B core antigen peptide.
XX
KW Telomerase reverse transcriptase; hTRT; human; cytotoxic T lymphocyte;
KW major histocompatibility complex; cancer; tumour;
KW human leucocyte antigen; HLA-A2.1; HBVc; vaccine.
XX
OS Hepatitis B virus.
XX
PN WO200160391-A1.
XX
PD 23-AUG-2001.
XX
PF 15-FEB-2001; 2001WO-US005143.
XX
PR 15-FEB-2000; 2000US-0182685P.
PR 15-FEB-2001; 2001US-00182685.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Zanetti M;
XX
DR WPI; 2001-536552/59.
XX
PT Vaccine for initiating and enhancing a cytotoxic T lymphocyte response,
PT for treating cancers or tumors or for inducing immune response against
PT tumors, comprises a telomerase reverse transcriptase peptide.
XX
PS Example 1; Page 12; 52pp; English.
XX
CC The present sequence is that of a hepatitis B virus core antigen (HBVc)
CC peptide comprising amino acid residues 128-140. The peptide was used to
CC immunise HHD mice and results were compared with those obtained using
CC human telomerase reverse transcriptase (hTRT) HLA-A2.1+ restricted
CC peptide p540 (see AAB82772). The induction of CTL responses in vitro and
CC in vivo, and the susceptibility to lysis of tumour cells of various
CC origins by hTRT CTL suggest that hTRT could serve as a universal cancer
CC vaccine for humans. A claimed universal vaccine for treating tumours of
CC any origin comprises at least 1 hTRT peptide. The peptide is 7-15 amino
CC acid residues in length and may be modified to enhance binding to the
CC major histocompatibility complex. Also claimed is a method for inducing
CC and enhancing a CTL response against cancer cells, involving harvesting
CC blood leucocytes, pulsing with hTRT, and contacting cancer cells with the
CC pulsed leucocytes. A method for targeting CTL to tumour cells is also
CC claimed, and involves administering a hTRT peptide to a mammal,
CC especially a cancer patient. (Updated on 06-AUG-2003 to correct OS
CC field.)
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 11
AAU00614
ID AAU00614 standard; peptide; 13 AA.
XX
AC AAU00614;
XX
DT 12-SEP-2001 (first entry)
XX
DE H-2 I-Ab-restricted HBV core antigen-derived T helper epitope.
XX
KW Human; MUC1; antigenic peptide; major histocompatibility complex; MHC-I;
KW glycoprotein; cytotoxic T lymphocytes; T cell response; cancer; vaccine;
KW cancer gene therapy; diagnosis; treatment; inflammatory disorder; HBV;
KW organ transplant rejection; graft versus host disease.

XX
OS Hepatitis B virus.
XX
PN WO200118035-A2.
XX
PD 15-MAR-2001.
XX
PF 07-SEP-2000; 2000WO-EP008761.
XX
PR 08-SEP-1999; 99GB-00021242.
PR 10-SEP-1999; 99EP-00402237.
PR 03-MAR-2000; 2000US-0187215P.
XX
PA (TRGE) TRANSGENE SA.
PA (IMCR) IMPERIAL CANCER RES TECHNOLOGY LTD.
XX
PI Taylor-Papadimitriou J, Heukamp LC, Offringa R, Melief CJM;
PI Acres B, Thomas M;
XX
DR WPI; 2001-235187/24.
XX
PT New antigenic polypeptides of MUC-1 protein which activate cytotoxic T
PT lymphocyte proteins and their analogs, useful for identifying a major
PT histocompatibility complex class I restricted T cell response and for
PT diagnosing cancer.
XX
PS Example 5; Page 42; 81pp; English.
XX
CC The sequence represents an H-2 I-Ab-restricted hepatitis B virus (HBV)
CC core antigen-derived T helper epitope used in testing of human MUC1
CC polypeptide derivatives through a cytotoxic T lymphocyte (CTL) assay.
CC Derivative antigenic peptides of MUC1 protein bind at least one major
CC histocompatibility complex class I (MHC-I) glycoprotein, which activates
CC cytotoxic T lymphocytes to induce a protective response against tumours.
CC Diagnosis of cancer involves determining the presence or absence in a
CC host cell of MHC class I restricted T cell response to a MUC1 derivative,
CC where the presence of the MHC class I restricted T cell response
CC indicates that the host has cancer. Measurement of the level of MHC class
CC I restricted T cell response is also useful to monitor the severity of
CC cancer, a larger response indicating a more severe cancer. MUC1
CC derivatives are useful in cancer therapy and to follow MUC1 specific
CC immune responses in patients during the course of disease and/or
CC treatment. MUC1 DNA is useful in cancer gene therapy, vaccination and
CC diagnosis. Compositions of the sequences are used in vaccines and
CC treatments against cancer or diseases caused by an immune response, such
CC as an inflammatory disorder, organ transplant rejection or graft versus
CC host disease
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 4; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 12
AAU70851
ID AAU70851 standard; peptide; 13 AA.
XX
AC AAU70851;
XX
DT 14-FEB-2002 (first entry)
XX
DE Hepatitis B virus antigen binding partner #83.
XX
KW Hepatitis B virus; virucide; immunomodulator; hepatotropic; HBV;
KW antiinflammatory; HBV core antigen; HBcAg; HBV E antigen; HBeAg;
KW B cell mediated processing; T cell proliferation; cytokine production;
KW immune system response.
XX
OS Synthetic.
XX
PN WO200181421-A2.
XX
PD 01-NOV-2001.
XX
PF 20-APR-2001; 2001WO-IB000844.
XX
PR 21-APR-2000; 2000US-00556605.
XX
PA (TRIP-) TRIPEP AB.
XX
PI Sallberg M;
XX
DR WPI; 2002-055347/07.
XX
PT Novel peptide that binds to hepatitis B virus core or E antigen, useful
PT for treating and preventing hepatitis B virus infection.
XX
PS Example 6; Page 28; 82pp; English.
XX
CC The invention relates to an isolated or purified peptide (I) which binds
CC Hepatitis B virus (HBV) core antigen (HBcAg) or HBV E antigen (HBeAg).
CC (I) is useful for treating or preventing Hepatitis B virus (HBV)
CC infection, by identifying a subject in need of a molecule that inhibits
CC HBV infection, and providing the subject with (I). (I) is also useful for
CC determining the presence of HBV in a biological sample, and for
CC inhibiting B cell mediated processing and uptake of HBcAg and/or HBeAg,
CC by determining whether (I) inhibits B cell mediated processing and uptake
CC of HBcAg and/or HBeAg by performing an assay of T cell proliferation or
CC cytokine production. (I) is also useful for modulating an immune system
CC response. (I) is useful as a template for a design of synthetic molecules
CC including peptides, derivatives or modified peptides, peptidomimetics and
CC chemicals. (I) is also useful as biotechnological tool, diagnostic
CC reagent and as active ingredient in pharmaceuticals. (I) is also useful
CC as detection reagents in conventional immunohistochemical techniques, as
CC diagnostic reagents to detect HBV in biological sample, and to determine
CC the efficacy of an HBV treatment protocol by monitoring the levels of
CC HBcAg and/or HBeAg during and after treatment. AAU70766-AAU70876
CC represent Hepatitis B virus (HBV) core antigen (HBcAg) or HBV E antigen
CC (HBeAg) binding partners as described in the invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 5; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 13
ABB76787
ID ABB76787 standard; peptide; 13 AA.
XX
AC ABB76787;
XX
DT 31-MAY-2002 (first entry)
XX
DE HBV peptide 128-140.
XX
KW Antiviral; anti-HIV; cytostatic; epitope; HLA A2.1;
KW human leukocyte antigen; immunotherapy; cancer; viral infection; vaccine.
XX
OS Unidentified.
XX
PN FR2812087-A1.
XX
PD 25-JAN-2002.
XX

PF 21-JUL-2000; 2000FR-00009591.
XX
PR 21-JUL-2000; 2000FR-00009591.
XX
PA (INRM) INSERM INST NAT SANTE & RECH MEDICALE.
XX
PI Kosmatopoulos K, Tourdot S, Scardino A, Gross DA;
XX
DR WPI; 2002-189846/25.
XX
PT Identifying subdominant or cryptic epitopes, useful in immunotherapy of
PT cancer and viral infection, comprises testing modified, non-immunogenic
PT peptides for induction of cytotoxic T cells.
XX
PS Example 1; Page 14; 62pp; French.
XX
CC The present invention relates to subdominant/cryptic epitopes that are
CC presented by HLA (human leukocyte antigen) Class I molecule A2.1. The
CC epitopes or chimeric polypeptides containing them and nucleic acid
CC encoding them are useful for preventative or curative immunotherapy of
CC cancer and viral infections, particularly where used as vaccines. The
CC present peptide was used to illustrate the invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 5; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 14
ABG62860
ID ABG62860 standard; peptide; 13 AA.
XX
AC ABG62860;
XX
DT 21-AUG-2002 (first entry)
XX
DE Antigenic domain peptide from a Hepatitis B virus protein.
XX
KW Ligand/receptor specificity exchanger; antibody; pathogen receptor;
KW bacterial infection; viral infection; yeast infection; cancer;
KW parasitic infection; fungal infection; proliferation; antibacterial;
KW virucide; cytostatic; antifungal; antigenic domain.
XX
OS Hepatitis B virus.
XX
PN WO200224887-A2.
XX
PD 28-MAR-2002.
XX
PF 19-SEP-2001; 2001WO-IB002327.
XX
PR 19-SEP-2000; 2000US-00664025.
XX
PA (TRIP-) TRIPEP AB.
XX
PI Sallberg M, Flock J;
XX
DR WPI; 2002-489707/52.
XX
PT Novel ligand/receptor specificity exchanger that redirects antibodies to
PT receptors on pathogen or tumor cell, has specificity domain having ligand
PT for receptor, and antigenic domain having epitope of pathogen or toxin.
XX
PS Claim 14; Page 14; 79pp; English.
XX
CC The present invention relates to ligand/receptor specificity exchangers
CC comprising at least one specificity domain comprising a ligand for a
CC receptor, and at least one antigenic domain joined to the specificity
CC domain, where the antigenic domain comprises an epitope of a pathogen or
CC toxin. The ligand/receptor specificity exchangers redirect antibodies to
CC receptors present on pathogens. They are useful for preventing and
CC treating human diseases such as bacterial, viral, yeast, parasitic and
CC fungal infections, and cancer. These compositions act by inhibiting
CC proliferation of pathogens, or cancer cells. One of the prophylactic
CC applications of the ligand/receptor specificity exchangers includes
CC coating or crosslinking it to a medical device or implant which include
CC implantable medical devices that tend to serve as foci for infection by a
CC number of bacterial species. ABG62853-ABG62869 represent antigenic domain
CC peptides used in the methods of the present invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 5; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 15
ABP52344
ID ABP52344 standard; peptide; 13 AA.
XX
AC ABP52344;
XX
DT 17-OCT-2002 (first entry)
XX
DE TH epitope.
XX
KW Cytotoxic T lymphocyte; CTL; T helper; MAGE3; cytotoxic T cell response;
KW tumour; immune response; cancer; vaccine; antibody.
XX
OS Synthetic.
XX
PN WO200258728-A2.
XX
PD 01-AUG-2002.
XX
PF 28-JAN-2002; 2002WO-GB000354.
XX
PR 26-JAN-2001; 2001GB-00002145.
XX
PA (SCAN-) SCANCELL LTD.
PA (CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
XX
PI Durrant LG, Parsons T, Robins A;
XX
DR WPI; 2002-608418/65.
XX
PT Use of polypeptides and nucleic acids encoding the polypeptides, in
PT manufacturing medicament for stimulating a cytotoxic T cell response and
PT for preventing or treating cancer, e.g. colorectal, lung, breast or
PT ovarian cancer.
XX
PS Example 11; Page 45; 87pp; English.
XX
CC The present invention describes the use of a polypeptide (I) in the
CC manufacture of a medicament for stimulating a cytotoxic T cell response,
CC where (I) comprises a first portion comprising the part of human Fc that
CC binds to CD64 and a second portion comprising one or more heterologous T
CC cell epitopes. Also described is a method of stimulating a cytotoxic T
CC cell response in a patient such as a mammal, preferably human, by
CC administering (I) to the patient. (I) has cytostatic activity and can be
CC used in vaccine production. (I) and the nucleic acid encoding (I) are
CC useful in the manufacture of a medicament for stimulating cytotoxic T
CC cell response. The medicament is useful for preventing and/or treating
CC cancer, e.g. colorectal, lung, breast, gastric or ovarian cancer. The
CC medicament stimulates cytotoxic and helper T cell responses. The

CC antibodies are useful as vaccines to stimulate helper and cytotoxic T
CC cell responses. The polypeptides and nucleic acids are useful in
CC optimising immunisation schedules for enhancing a protective immune
CC response against cancer. The present sequence represents a TH epitope
CC which is used in an example from the present invention
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 74; DB 5; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

Search completed: September 8, 2005, 03:21:19
Job time : 168 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 8, 2005, 03:14:31 ; Search time 39 Seconds
(without alignments)
32.072 Million cell updates/sec

Title: US-09-647-981A-10
Perfect score: 74
Sequence: 1 TPPAYRPPNAPIL 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	74	100.0	183	1	NKVLA2	core antigen - hep
2	74	100.0	183	1	NKVLCP	core antigen - hep
3	74	100.0	183	2	S53181	core antigen - hep
4	74	100.0	183	2	S53260	core antigen - hep
5	74	100.0	183	2	S53214	core antigen - hep
6	74	100.0	183	2	S53175	core antigen - hep
7	74	100.0	183	2	S53152	core antigen - hep
8	74	100.0	183	2	S53221	core antigen - hep
9	74	100.0	183	2	S53140	core antigen - hep
10	74	100.0	183	2	S53232	core antigen - hep
11	74	100.0	183	2	S20755	core antigen - hep
12	74	100.0	183	2	S53172	core antigen - hep
13	74	100.0	183	2	S53166	core antigen - hep
14	74	100.0	183	2	S53129	core antigen - hep
15	74	100.0	183	2	S53189	core antigen - hep
16	74	100.0	183	2	S53169	core antigen - hep
17	74	100.0	183	2	S53186	core antigen - hep
18	74	100.0	183	2	S53194	core antigen - hep
19	74	100.0	183	2	S53270	core antigen - hep
20	74	100.0	183	2	S53247	core antigen - hep
21	74	100.0	184	2	S53146	core antigen - hep
22	74	100.0	195	1	NKVLH3	core antigen - hep
23	74	100.0	211	1	NKVLA1	e antigen precurso
24	74	100.0	212	1	NKVLA4	e antigen precurso
25	74	100.0	212	1	NKVLAH	e antigen precurso
26	74	100.0	212	1	NKVLBH	e antigen precurso
27	74	100.0	212	1	NKVLJ1	e antigen precurso
28	74	100.0	212	1	NKVLJ2	e antigen precurso
29	74	100.0	212	2	S53238	e antigen precurso
30	74	100.0	212	2	S53227	e antigen precurso
31	74	100.0	212	2	S67504	e antigen precurso
32	74	100.0	212	2	S53281	e antigen precurso
33	74	100.0	212	2	S53240	e antigen precurso
34	74	100.0	212	2	S53272	e antigen precurso
35	74	100.0	212	2	S53229	e antigen precurso
36	74	100.0	212	2	S53202	e antigen precurso
37	74	100.0	212	2	S53163	e antigen precurso
38	74	100.0	212	2	S53216	e antigen precurso
39	74	100.0	212	2	S53257	e antigen precurso
40	74	100.0	212	2	S53255	e antigen precurso
41	74	100.0	212	2	S20746	e antigen precurso
42	74	100.0	212	2	S20750	e antigen precurso
43	74	100.0	212	2	S53236	e antigen precurso
44	74	100.0	212	2	S32204	e antigen precurso
45	74	100.0	212	2	S53204	e antigen precurso

ALIGNMENTS

RESULT 1
NKVLA2
core antigen - hepatitis B virus (subtype adyw)
C;Species: hepatitis B virus, HBV
A;Variety: subtype adyw
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 09-Jul-2004
C;Accession: B93217; A03711
R;Pasek, M.; Goto, T.; Gilbert, W.; Zink, B.; Schaller, H.; MacKay, P.; Leadbetter, G.;
Nature 282, 575-579, 1979
A;Title: Hepatitis B virus genes and their expression in E. coli.
A;Reference number: A93217; MUID:81012115; PMID:399329
A;Accession: B93217
A;Molecule type: DNA
A;Residues: 1-183 <PAS>
A;Cross-references: UNIPROT:P03147; GB:J02202; NID:g329637; PIDN:AAA45486.1; PID:g32963
A;Experimental source: subtype adyw
A;Note: due to a stop codon between the alternative initiators the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein
F;1-183/Product: core antigen #status predicted <MAT>

Query Match 100.0%; Score 74; DB 1; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140
```

RESULT 2
NKVLCP
core antigen - hepatitis B virus (strain LSH, chimpanzee)
N;Alternate names: HBc antigen
C;Species: hepatitis B virus, HBV
A;Variety: strain LSH, chimpanzee
C;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change 09-Jul-2004
C;Accession: A28885
R;Vaudin, M.; Wolstenholme, A.J.; Tsiquaye, K.N.; Zuckerman, A.J.; Harrison, T.J.
J. Gen. Virol. 69, 1383-1389, 1988
A;Title: The complete nucleotide sequence of the genome of a hepatitis B virus isolated
A;Reference number: A92796; MUID:88258473; PMID:2838576
A;Accession: A28885
A;Molecule type: DNA
A;Residues: 1-183 <VAU>
A;Cross-references: UNIPROT:P12901; EMBL:D00220; NID:g221505; PIDN:BAA00157.1; PID:g2215
A;Experimental source: strain LSH, chimpanzee
A;Note: due to a stop codon between the alternative initiators the e antigen precursor
C;Genetics:
A;Gene: C

```
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

  Query Match             100.0%;  Score 74;  DB 1;  Length 183;
  Best Local Similarity   100.0%;  Pred. No. 0.00067;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140


RESULT 3
S53181
core antigen - hepatitis B virus
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53181; S53291
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53181
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67997; EMBL:X85279; NID:g736073; PIDN:CAA59583.1; PID:g7360
A;Experimental source: isolate patient Bitti'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
A;Accession: S53291
A;Molecule type: DNA
A;Residues: 1-20,'T',22-37,'L',39,'D',41-57,'E',59-76,'Q',78-83,'L',85-86,'N',88-146,'S'
A;Cross-references: EMBL:X85263; NID:g736232; PIDN:CAA59538.1; PID:g736235
A;Experimental source: isolate patient Amoroso'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

  Query Match             100.0%;  Score 74;  DB 2;  Length 183;
  Best Local Similarity   100.0%;  Pred. No. 0.00067;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140


RESULT 4
S53260
core antigen - hepatitis B virus (isolate patient Mannoni-3'94)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Mannoni-3'94
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53260
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53260
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q68060; EMBL:X85311; NID:g736187; PIDN:CAA59655.1; PID:g7361
A;Experimental source: isolate patient Mannoni-3'94
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

  Query Match             100.0%;  Score 74;  DB 2;  Length 183;
  Best Local Similarity   100.0%;  Pred. No. 0.00067;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140


RESULT 5
S53214
core antigen - hepatitis B virus (isolate patient Castag-2'86)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Castag-2'86
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53214
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53214
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q68023; EMBL:X85292; NID:g736120; PIDN:CAA59614.1; PID:g7361
A;Experimental source: isolate patient Castag-2'86
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

  Query Match             100.0%;  Score 74;  DB 2;  Length 183;
  Best Local Similarity   100.0%;  Pred. No. 0.00067;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140


RESULT 6
S53175
core antigen - hepatitis B virus (isolate patient Boi'90)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Boi'90
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53175
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53175
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67993; EMBL:X85277; NID:g736065; PIDN:CAA59577.1; PID:g7360
A;Experimental source: isolate patient Boi'90
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

  Query Match             100.0%;  Score 74;  DB 2;  Length 183;
  Best Local Similarity   100.0%;  Pred. No. 0.00067;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db        128 TPPAYRPPNAPIL 140


RESULT 7
```

S53152
core antigen - hepatitis B virus (isolate patient Tufariello'89)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Tufariello'89
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53152
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53152
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67973; EMBL:X85269; NID:g736033; PIDN:CAA59556.1; PID:g7360
A;Experimental source: isolate patient Tufariello'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 8
S53221
core antigen - hepatitis B virus (isolate patient Giulioc'92)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Giulioc'92
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53221
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53221
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q68027; EMBL:X85258; NID:g736127; PIDN:CAA59525.1; PID:g7361
A;Experimental source: isolate patient Giulioc'92
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 9
S53140
core antigen - hepatitis B virus (isolate patient Frailis'92)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Frailis'92
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53140
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53140
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67964; EMBL:X85265; NID:g736017; PIDN:CAA59544.1; PID:g7360
A;Experimental source: isolate patient Frailis'92
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 10
S53232
core antigen - hepatitis B virus (isolate patient Dettori-2'87)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Dettori-2'87
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53232
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53232
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q68037; EMBL:X85299; NID:g736146; PIDN:CAA59629.1; PID:g7361
A;Experimental source: isolate patient Dettori-2'87
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 11
S20755
core antigen - hepatitis B virus
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
C;Accession: S20755; S53134
R;Lai, M.E.; Mazzoleni, A.P.; Balestrieri, A.; Melis, A.; Porru, A.
submitted to the EMBL Data Library, March 1992
A;Description: Sequence analysis of HBV genomes isolated from patients with HBsAg negati
A;Reference number: S20745
A;Accession: S20755
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67880; EMBL:X65259; NID:g59439; PIDN:CAA46359.1; PID:g59442
A;Experimental source: subtype ayw, patient E
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.

submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53134
A;Molecule type: DNA
A;Residues: 1-7,'E',9-11,'S',13-16,'SF',19-24,'PS',27-33,'S',35-37,'F',39,'D',41-48,'T',
A;Cross-references: EMBL:X85255; NID:g736009; PIDN:CAA59517.1; PID:g736012
A;Experimental source: isolate patient Tarcisioc'92
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 12
S53172
core antigen - hepatitis B virus (isolate patient Urtis'89)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Urtis'89
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53172
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53172
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67991; EMBL:X85276; NID:g736061; PIDN:CAA59574.1; PID:g7360
A;Experimental source: isolate patient Urtis'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 13
S53166
core antigen - hepatitis B virus (isolate patient Tedde'89)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Tedde'89
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53166
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53166
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67986; EMBL:X85274; NID:g736053; PIDN:CAA59568.1; PID:g7360
A;Experimental source: isolate patient Tedde'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 14
S53129
core antigen - hepatitis B virus
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53129
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53129
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q67946; EMBL:X85254; NID:g736003; PIDN:CAA59512.1; PID:g7360
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 128 TPPAYRPPNAPIL 140

RESULT 15
S53189
core antigen - hepatitis B virus (isolate patient Serra'89)
N;Alternate names: HBc antigen
N;Contains: core antigen
C;Species: hepatitis B virus, HBV
A;Variety: isolate patient Serra'89
C;Date: 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S53189
R;Lai, M.E.; Mazzoleni, A.P.; Porru, A.; Balestrieri, A.
submitted to the EMBL Data Library, March 1995
A;Reference number: S53112
A;Accession: S53189
A;Molecule type: DNA
A;Residues: 1-183 <LAI>
A;Cross-references: UNIPROT:Q68003; EMBL:X85282; NID:g736084; PIDN:CAA59591.1; PID:g7360
A;Experimental source: isolate patient Serra'89
A;Note: due to a stop codon between the alternative initiatiors the e antigen precursor
C;Genetics:
A;Gene: C
C;Superfamily: hepatitis B virus core antigen
C;Keywords: core protein

Query Match 100.0%; Score 74; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||||
Db 128 TPPAYRPPNAPIL 140

Search completed: September 8, 2005, 03:24:55
Job time : 40 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 8, 2005, 03:06:11 ; Search time 168 Seconds
(without alignments)
39.625 Million cell updates/sec

Title: US-09-647-981A-10
Perfect score: 74
Sequence: 1 TPPAYRPPNAPIL 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	74	100.0	96	2	Q77BF4	Q77bf4 hepatitis b
2	74	100.0	96	2	Q77BF6	Q77bf6 hepatitis b
3	74	100.0	96	2	Q77BF8	Q77bf8 hepatitis b
4	74	100.0	96	2	Q77BG0	Q77bg0 hepatitis b
5	74	100.0	96	2	Q77BG1	Q77bg1 hepatitis b
6	74	100.0	96	2	Q77BG3	Q77bg3 hepatitis b
7	74	100.0	96	2	Q77BG4	Q77bg4 hepatitis b
8	74	100.0	96	2	Q77BG5	Q77bg5 hepatitis b
9	74	100.0	96	2	Q77BG7	Q77bg7 hepatitis b
10	74	100.0	96	2	Q77BG9	Q77bg9 hepatitis b
11	74	100.0	96	2	Q77BH1	Q77bh1 hepatitis b
12	74	100.0	96	2	Q77BH3	Q77bh3 hepatitis b
13	74	100.0	96	2	Q9YJM3	Q9yjm3 hepatitis b
14	74	100.0	96	2	Q9YQ42	Q9yq42 hepatitis b
15	74	100.0	113	2	Q80J61	Q80j61 hepatitis b
16	74	100.0	130	2	Q8JSV0	Q8jsv0 hepatitis b
17	74	100.0	130	2	Q8JSV1	Q8jsv1 hepatitis b
18	74	100.0	130	2	Q8JSV2	Q8jsv2 hepatitis b
19	74	100.0	130	2	Q8JSV3	Q8jsv3 hepatitis b
20	74	100.0	130	2	Q8JSV4	Q8jsv4 hepatitis b
21	74	100.0	130	2	Q8JSV5	Q8jsv5 hepatitis b
22	74	100.0	130	2	Q8JSV6	Q8jsv6 hepatitis b
23	74	100.0	130	2	Q8JSV7	Q8jsv7 hepatitis b
24	74	100.0	130	2	Q8JSV9	Q8jsv9 hepatitis b
25	74	100.0	130	2	Q8JSW0	Q8jsw0 hepatitis b
26	74	100.0	130	2	Q8JSW1	Q8jsw1 hepatitis b
27	74	100.0	130	2	Q8JSW2	Q8jsw2 hepatitis b
28	74	100.0	130	2	Q8JSW3	Q8jsw3 hepatitis b
29	74	100.0	130	2	Q8JSW4	Q8jsw4 hepatitis b
30	74	100.0	130	2	Q8JSW5	Q8jsw5 hepatitis b
31	74	100.0	130	2	Q8JSW6	Q8jsw6 hepatitis b
32	74	100.0	130	2	Q8JSW7	Q8jsw7 hepatitis b
33	74	100.0	130	2	Q8JSW8	Q8jsw8 hepatitis b
34	74	100.0	130	2	Q8JSW9	Q8jsw9 hepatitis b
35	74	100.0	130	2	Q8JSX0	Q8jsx0 hepatitis b
36	74	100.0	130	2	Q8JSX1	Q8jsx1 hepatitis b
37	74	100.0	130	2	Q8JSX2	Q8jsx2 hepatitis b
38	74	100.0	130	2	Q8JSX3	Q8jsx3 hepatitis b
39	74	100.0	130	2	Q8JSX4	Q8jsx4 hepatitis b
40	74	100.0	130	2	Q8JSX5	Q8jsx5 hepatitis b
41	74	100.0	130	2	Q8QP11	Q8qp11 hepatitis b
42	74	100.0	130	2	Q8QP13	Q8qp13 hepatitis b
43	74	100.0	130	2	Q8QP14	Q8qp14 hepatitis b
44	74	100.0	130	2	Q8QP15	Q8qp15 hepatitis b
45	74	100.0	130	2	Q8QP16	Q8qp16 hepatitis b

ALIGNMENTS

RESULT 1
Q77BF4
ID Q77BF4 PRELIMINARY; PRT; 96 AA.
AC Q77BF4;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Core antigen (Fragment).
OS Hepatitis B virus.
OC Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX NCBI_TaxID=10407;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Genotype D; TISSUE=Blood;
RX MEDLINE=20381124; PubMed=10921962;
RA Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA Manzin A.;
RT "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL J. Clin. Microbiol. 38:2975-2981(2000).
DR EMBL; AJ010006; CAA08960.1; -.
DR InterPro; IPR002006; Hepatitis_core.
DR Pfam; PF00906; Hepatitis_core; 1.
FT NON_TER 1 1
SQ SEQUENCE 96 AA; 11443 MW; FBA862E745196B9E CRC64;

Query Match 100.0%; Score 74; DB 2; Length 96;
Best Local Similarity 100.0%; Pred. No. 0.0036;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53
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RESULT 2
Q77BF6
ID Q77BF6 PRELIMINARY; PRT; 96 AA.
AC Q77BF6;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Core antigen (Fragment).
OS Hepatitis B virus.
OC Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX NCBI_TaxID=10407;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Genotype D; TISSUE=Blood;
RX MEDLINE=20381124; PubMed=10921962;
RA Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA Manzin A.;
RT "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL J. Clin. Microbiol. 38:2975-2981(2000).
DR EMBL; AJ010005; CAA08958.1; -.

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DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 3
Q77BF8
ID   Q77BF8      PRELIMINARY;      PRT;    96 AA.
AC   Q77BF8;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010004; CAA08956.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 4
Q77BG0
ID   Q77BG0      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG0;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010003; CAA08954.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 5
Q77BG1
ID   Q77BG1      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG1;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010002; CAA08952.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 6
Q77BG3
ID   Q77BG3      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG3;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010000; CAA08948.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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              ||||||||||||
Db         41 TPPAYRPPNAPIL 53

RESULT 7
Q77BG4
ID   Q77BG4      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG4;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009999; CAA08946.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              ||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 8
Q77BG5
ID   Q77BG5      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG5;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009998; CAA08944.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              ||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 9
Q77BG7
ID   Q77BG7      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG7;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009997; CAA08942.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              ||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 10
Q77BG9
ID   Q77BG9      PRELIMINARY;      PRT;    96 AA.
AC   Q77BG9;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009996; CAA08940.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              ||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 11
Q77BH1
ID   Q77BH1      PRELIMINARY;      PRT;    96 AA.
AC   Q77BH1;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
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DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009995; CAA08938.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 12
Q77BH3
ID   Q77BH3      PRELIMINARY;      PRT;    96 AA.
AC   Q77BH3;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ009994; CAA08936.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 13
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ID   Q9YJM3      PRELIMINARY;      PRT;    96 AA.
AC   Q9YJM3;
DT   01-MAY-1999 (TrEMBLrel. 10, Created)
DT   01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010007; CAA08962.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   96 AA;  11443 MW;  FBA862E745196B9E CRC64;

  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db         41 TPPAYRPPNAPIL 53


RESULT 14
Q9YQ42
ID   Q9YQ42      PRELIMINARY;      PRT;    96 AA.
AC   Q9YQ42;
DT   01-MAY-1999 (TrEMBLrel. 10, Created)
DT   01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT   01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE   Core antigen (Fragment).
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Genotype D; TISSUE=Blood;
RX   MEDLINE=20381124; PubMed=10921962;
RA   Petrosillo N., Ippolito G., Solforosi L., Varaldo P.E., Clementi M.,
RA   Manzin A.;
RT   "Molecular epidemiology of an outbreak of fulminant hepatitis B.";
RL   J. Clin. Microbiol. 38:2975-2981(2000).
DR   EMBL; AJ010001; CAA08950.1; -.
DR   InterPro; IPR002006; Hepatitis_core.
DR   Pfam; PF00906; Hepatitis_core; 1.
FT   NON_TER       1      1
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  Query Match             100.0%;  Score 74;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 0.0036;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db         41 TPPAYRPPNAPIL 53


RESULT 15
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AC   Q80J61;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Core protein.
OS   Hepatitis B virus.
OC   Viruses; Retroid viruses; Hepadnaviridae; Orthohepadnavirus.
OX   NCBI_TaxID=10407;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=15215682; DOI=10.1023/B:VIRU.0000032787.77837.09;
RA   Luo K., Liu Z., He H., Peng J., Liang W., Dai W., Hou J.;
RT   "The putative recombination of hepatitis B virus genotype B with pre-
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RT c/c region of genotype C.";
RL Virus Genes 29:31-41(2004).
DR EMBL; AY217370; AAO63544.1; -.
DR InterPro; IPR002006; Hepatitis_core.
DR Pfam; PF00906; Hepatitis_core; 2.
SQ SEQUENCE 113 AA; 13068 MW; 3A0E460F2038C680 CRC64;

Query Match 100.0%; Score 74; DB 2; Length 113;
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Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
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Db 58 TPPAYRPPNAPIL 70

Search completed: September 8, 2005, 03:24:10
Job time : 169 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 8, 2005, 02:55:25 ; Search time 42 Seconds
(without alignments)
23.106 Million cell updates/sec

Title: US-09-647-981A-10
Perfect score: 74
Sequence: 1 TPPAYRPPNAPIL 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	74	100.0	13	1	US-08-305-871A-14	Sequence 14, Appl
2	74	100.0	13	3	US-08-464-496-19	Sequence 19, Appl
3	74	100.0	13	4	US-08-788-822A-16	Sequence 16, Appl
4	74	100.0	13	4	US-08-197-484-113	Sequence 113, App
5	74	100.0	13	4	US-09-311-784A-49	Sequence 49, Appl
6	74	100.0	13	4	US-09-664-945-50	Sequence 50, Appl
7	74	100.0	13	5	PCT-US92-07218-19	Sequence 19, Appl
8	74	100.0	13	5	PCT-US95-02121-113	Sequence 113, App
9	74	100.0	13	5	PCT-US95-16415-9	Sequence 9, Appli
10	74	100.0	14	4	US-09-311-784A-124	Sequence 124, App
11	74	100.0	15	3	US-08-737-896-7	Sequence 7, Appli
12	74	100.0	15	5	PCT-US96-09951-7	Sequence 7, Appli
13	74	100.0	21	3	US-09-100-409A-45	Sequence 45, Appl
14	74	100.0	21	4	US-09-701-623C-69	Sequence 69, Appl
15	74	100.0	21	5	PCT-US95-13841-13	Sequence 13, Appl
16	74	100.0	23	3	US-08-464-496-20	Sequence 20, Appl
17	74	100.0	23	4	US-08-197-484-114	Sequence 114, App
18	74	100.0	23	5	PCT-US92-07218-20	Sequence 20, Appl
19	74	100.0	23	5	PCT-US95-02121-114	Sequence 114, App
20	74	100.0	26	3	US-08-464-496-21	Sequence 21, Appl
21	74	100.0	26	4	US-08-197-484-115	Sequence 115, App
22	74	100.0	26	5	PCT-US92-07218-21	Sequence 21, Appl
23	74	100.0	26	5	PCT-US95-02121-115	Sequence 115, App
24	74	100.0	80	4	US-09-311-784A-22	Sequence 22, Appl
25	74	100.0	118	4	US-09-311-784A-8	Sequence 8, Appli
26	74	100.0	119	4	US-09-311-784A-10	Sequence 10, Appl
27	74	100.0	136	4	US-09-311-784A-12	Sequence 12, Appl
28	74	100.0	138	4	US-09-311-784A-4	Sequence 4, Appli
29	74	100.0	152	4	US-09-311-784A-20	Sequence 20, Appl
30	74	100.0	154	3	US-08-968-747-1	Sequence 1, Appli
31	74	100.0	155	3	US-08-968-747-17	Sequence 17, Appl
32	74	100.0	159	3	US-08-445-585-3	Sequence 3, Appli
33	74	100.0	161	3	US-08-968-747-19	Sequence 19, Appl
34	74	100.0	164	4	US-09-311-784A-18	Sequence 18, Appl
35	74	100.0	183	3	US-08-968-747-20	Sequence 20, Appl
36	74	100.0	183	3	US-09-248-588-2	Sequence 2, Appli
37	74	100.0	183	3	US-09-248-588-4	Sequence 4, Appli
38	74	100.0	183	5	PCT-US96-10602-12	Sequence 12, Appl
39	74	100.0	185	1	US-07-739-642-2	Sequence 2, Appli
40	74	100.0	185	1	US-07-739-642-4	Sequence 4, Appli
41	74	100.0	185	1	US-07-739-642-8	Sequence 8, Appli
42	74	100.0	185	1	US-07-739-642-10	Sequence 10, Appl
43	74	100.0	185	1	US-07-739-643-2	Sequence 2, Appli
44	74	100.0	185	1	US-07-739-643-4	Sequence 4, Appli
45	74	100.0	185	1	US-07-739-643-8	Sequence 8, Appli

ALIGNMENTS

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RESULT 1
US-08-305-871A-14
; Sequence 14, Application US/08305871A
; Patent No. 5736142
;  GENERAL INFORMATION:
;    APPLICANT:  Sette, Alessandro
;    APPLICANT:  Gaeta, Federico
;    APPLICANT:  Grey, Howard M.
;    APPLICANT:  Sidney, John
;    APPLICANT:  Alexander, Jeffrey L.
;    TITLE OF INVENTION:  Alteration of Immune Response Using Pan
;    TITLE OF INVENTION:  DR-Binding Peptides
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, Eighth Floor
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94111-3834
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/305,871A
;      FILING DATE:  14-SEP-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/121,101
;      FILING DATE:  14-SEP-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bastian, Kevin L.
;      REGISTRATION NUMBER:  34,774
;      REFERENCE/DOCKET NUMBER:  14137-0062-10
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 576-0200
;      TELEFAX:  (415) 576-0300
;  INFORMATION FOR SEQ ID NO:  14:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-305-871A-14

  Query Match             100.0%;  Score 74;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
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  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db          1 TPPAYRPPNAPIL 13


RESULT 2
US-08-464-496-19
; Sequence 19, Application US/08464496
; Patent No. 6322789
; GENERAL INFORMATION:
;  APPLICANT: Epimmune, Inc.
;  APPLICANT:  Vitiello, Maria
;  APPLICANT:  Chesnut, Robert
;  TITLE OF INVENTION: HLA-RESTRICTED HEPATITIS B VIRUS CTL
;  TITLE OF INVENTION:  EPITOPES
;  FILE REFERENCE: 39963-20001.13
;  CURRENT APPLICATION NUMBER: US/08/464,496
;  CURRENT FILING DATE:  1995-06-05
;  PRIOR APPLICATION NUMBER: 07/935,811
;  PRIOR FILING DATE: 1992-08-26
;  PRIOR APPLICATION NUMBER: 07/874,491
;  PRIOR FILING DATE: 1992-04-27
;  PRIOR APPLICATION NUMBER: 07/827,682
;  PRIOR FILING DATE: 1992-01-29
;  PRIOR APPLICATION NUMBER: 07/749,568
;  PRIOR FILING DATE: 1991-08-26
;  NUMBER OF SEQ ID NOS: 75
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 19
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: T helper epitope HBC 128-140
US-08-464-496-19

  Query Match             100.0%;  Score 74;  DB 3;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db          1 TPPAYRPPNAPIL 13


RESULT 3
US-08-788-822A-16
; Sequence 16, Application US/08788822A
; Patent No. 6413935
;  GENERAL INFORMATION:
;    APPLICANT:  Alexander, Jeffrey L.
;    APPLICANT:  DeFrees, Shawn
;    APPLICANT:  Sette, Alessandro
;    TITLE OF INVENTION:  Induction of Immune Response Against
;    TITLE OF INVENTION:  Desired Determinants
;    NUMBER OF SEQUENCES:  30
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, Eighth Floor
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94111-3834
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/788,822A
;      FILING DATE:  23-JAN-1997
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/010,510
;      FILING DATE:  24-JAN-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bastian, Kevin L.
;      REGISTRATION NUMBER:  34,774
;      REFERENCE/DOCKET NUMBER:  014137-009210US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 576-0200
;      TELEFAX:  (415) 576-0300
;  INFORMATION FOR SEQ ID NO:  16:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-788-822A-16

  Query Match             100.0%;  Score 74;  DB 4;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 4
US-08-197-484-113
; Sequence 113, Application US/08197484
; Patent No. 6419931
;  GENERAL INFORMATION:
;    APPLICANT:  VITIELLO, Maria A.
;    APPLICANT:  CHESTNUT, Robert W.
;    APPLICANT:  SETTE, Alessandro D.
;    APPLICANT:  CELIS, Esteban
;    APPLICANT:  GRAY, Howard
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR ELICITING
;    TITLE OF INVENTION:  CTL IMMUNITY
;    NUMBER OF SEQUENCES:  153
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend Khourie and Crew
;      STREET:  Steuart Street Tower, One Market Plaza
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  US
;      ZIP:  94105-1493
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/197,484
;      FILING DATE:  16-FEB-1994
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/935,811
;      FILING DATE:  26-AUG-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/874,491
;      FILING DATE:  27-APR-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/827,682
;      FILING DATE:  29-JAN-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/749,568
;      FILING DATE:  26-AUG-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Parmelee, Steven W.
;      REGISTRATION NUMBER:  31,990
```

```
;      REFERENCE/DOCKET NUMBER:  14137-26-4
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (206) 467-9600
;      TELEFAX:  (206) 623-6793
;  INFORMATION FOR SEQ ID NO:  113:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
US-08-197-484-113

  Query Match             100.0%;  Score 74;  DB 4;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 5
US-09-311-784A-49
; Sequence 49, Application US/09311784A
; Patent No. 6534482
; GENERAL INFORMATION:
;  APPLICANT: Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.01
;  CURRENT APPLICATION NUMBER: US/09/311,784A
;  CURRENT FILING DATE:  1999-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 49
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: residues 128-141 of HBV core antigen (HBVcore 128)
US-09-311-784A-49

  Query Match             100.0%;  Score 74;  DB 4;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 6
US-09-664-945-50
; Sequence 50, Application US/09664945
; Patent No. 6660842
; GENERAL INFORMATION:
;  APPLICANT:  Matti Sallberg
;  TITLE OF INVENTION:  LIGAND/RECEPTOR SPECIFICITY EXCHANGERS
;  TITLE OF INVENTION:  THAT REDIRECT ANTIBODIES TO RECEPTORS ON A PATHOGEN
;  FILE REFERENCE:  TRIPEP.007CP3
;  CURRENT APPLICATION NUMBER: US/09/664,945
;  CURRENT FILING DATE:  2000-09-19
;  PRIOR APPLICATION NUMBER:  09/532,106
;  PRIOR FILING DATE:  2000-03-21
;  PRIOR APPLICATION NUMBER:  09/246,258
;  PRIOR FILING DATE:  1999-02-08
;  PRIOR APPLICATION NUMBER:  08/737,085
;  PRIOR FILING DATE:  1996-12-27
;  PRIOR APPLICATION NUMBER:  SE 9401460
;  PRIOR FILING DATE:  1994-04-28
;  NUMBER OF SEQ ID NOS:  105
;  SOFTWARE:  FastSEQ for Windows Version 4.0
; SEQ ID NO 50
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Antigenic domain peptide
US-09-664-945-50

  Query Match             100.0%;  Score 74;  DB 4;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 7
PCT-US92-07218-19
; Sequence 19, Application PC/TUS9207218
;  GENERAL INFORMATION:
;    APPLICANT:  Vitiello, Maria A.
;    APPLICANT:  Chesnut, Robert W.
;    TITLE OF INVENTION:  HLA-RESTRICTED HEPATITIS B VIRUS CTL
;    TITLE OF INVENTION:  EPITOPES
;    NUMBER OF SEQUENCES:  35
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend
;      STREET:  One Market Plaza, Steuart Street Tower
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94105
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US92/07218
;      FILING DATE:  19920826
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/749,568
;      FILING DATE:  26-AUG-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/827,682
;      FILING DATE:  29-JAN-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/874,491
;      FILING DATE:  27-APR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Smith, William M.
;      REGISTRATION NUMBER:  30,223
;      REFERENCE/DOCKET NUMBER:  14137-26-3
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-326-2400
;      TELEFAX:  415-543-5043
;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  AMINO ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
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```
PCT-US92-07218-19

  Query Match             100.0%;  Score 74;  DB 5;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 8
PCT-US95-02121-113
; Sequence 113, Application PC/TUS9502121
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR ELICITING
;    TITLE OF INVENTION:  CTL IMMUNITY
;    NUMBER OF SEQUENCES:  153
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/02121
;      FILING DATE:  16-FEB-1995
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/197,484
;      FILING DATE:  16-FEB-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/935,811
;      FILING DATE:  26-AUG-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/874,491
;      FILING DATE:  27-APR-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/827,682
;      FILING DATE:  29-JAN-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/749,568
;      FILING DATE:  26-AUG-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Parmelee, Steven W.
;      REGISTRATION NUMBER:  31,990
;      REFERENCE/DOCKET NUMBER:  14137-26-4PC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (206) 467-9600
;      TELEFAX:  (415) 543-5043
;  INFORMATION FOR SEQ ID NO:  113:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
PCT-US95-02121-113

  Query Match             100.0%;  Score 74;  DB 5;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 9
PCT-US95-16415-9
; Sequence 9, Application PC/TUS9516415
;  GENERAL INFORMATION:
;    APPLICANT:  The Scripps Research Institute
;    TITLE OF INVENTION:  IN VIVO ACTIVATION OF TUMOR-SPECIFIC
;    TITLE OF INVENTION:  CYTOTOXIC T CELLS
;    NUMBER OF SEQUENCES:  38
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  The Scripps Research Institute
;      STREET:  10666 North Torrey Pines Road, TPC-8
;      CITY:  La Jolla
;      STATE:  California
;      COUNTRY:  US
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/16415
;      FILING DATE:  13-DEC-1995
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/355,558
;      FILING DATE:  14-DEC-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Logan, April C.
;      REGISTRATION NUMBER:  33,950
;      REFERENCE/DOCKET NUMBER:  433.1PC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 554-2937
;      TELEFAX:  (619) 554-6312
;  INFORMATION FOR SEQ ID NO:  9:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
PCT-US95-16415-9

  Query Match             100.0%;  Score 74;  DB 5;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.00025;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 10
US-09-311-784A-124
; Sequence 124, Application US/09311784A
; Patent No. 6534482
; GENERAL INFORMATION:
;  APPLICANT: Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.01
;  CURRENT APPLICATION NUMBER: US/09/311,784A
;  CURRENT FILING DATE:  1999-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 124
;   LENGTH: 14
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: HBVcore128
```

```
US-09-311-784A-124

  Query Match             100.0%;  Score 74;  DB 4;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0.00026;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 11
US-08-737-896-7
; Sequence 7, Application US/08737896
; Patent No. 6168804
;  GENERAL INFORMATION:
;    APPLICANT:  Samuel, John
;    APPLICANT:  Kwon, Glen S.
;    TITLE OF INVENTION:  METHOD FOR ELICITING TH1-SPECIFIC
;    TITLE OF INVENTION:  IMMUNE RESPONSE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows 95
;      SOFTWARE:  FastSEQ for Windows Version 2.0b
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/737,896
;      FILING DATE:  24-SEP-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/480,499
;      FILING DATE:  07-JUN-1996
;      APPLICATION NUMBER:  PCT/US96/09551
;      FILING DATE:  07-JUN-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07254/037001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  619/678-5099
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    IMMEDIATE SOURCE:
;      CLONE:  HbcAg
US-08-737-896-7

  Query Match             100.0%;  Score 74;  DB 3;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0.00028;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          3 TPPAYRPPNAPIL 15


RESULT 12
PCT-US96-09951-7
; Sequence 7, Application PC/TUS9609951
;  GENERAL INFORMATION:
;    APPLICANT:  The Governors of the University of Alberta
;    TITLE OF INVENTION:  A METHOD FOR ELICITING A Th1-SPECIFIC
;    TITLE OF INVENTION:  IMMUNE RESPONSE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US96/09951
;      FILING DATE:  06-JUN-1996
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Learn, June M.
;      REGISTRATION NUMBER:  31,238
;      REFERENCE/DOCKET NUMBER:  07254/037WO1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 678-5070
;      TELEFAX:  (619) 678-5099
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    IMMEDIATE SOURCE:
;      CLONE:  HbcAg
;    FEATURE:
;      NAME/KEY:  Peptide
;      LOCATION:  1..15
PCT-US96-09951-7

  Query Match             100.0%;  Score 74;  DB 5;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0.00028;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          3 TPPAYRPPNAPIL 15


RESULT 13
US-09-100-409A-45
; Sequence 45, Application US/09100409A
; Patent No. 6090388
;  GENERAL INFORMATION:
;    APPLICANT:  Wang, Chang Yi
;    TITLE OF INVENTION:  PEPTIDE COMPOSITION FOR
;    TITLE OF INVENTION:  PREVENTION AND TREATMENT OF HIV INFECTION AND
;    TITLE OF INVENTION:  IMMUNE DISORDERS
;    NUMBER OF SEQUENCES:  64
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORGAN & FINNEGAN
;      STREET:  345 Park Avenue
;      CITY:  New York
;      STATE:  NY
;      COUNTRY:  USA
;      ZIP:  10154-0054
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version
;      SOFTWARE:  #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/100,409A
```

```
;      FILING DATE:
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:
;      REGISTRATION NUMBER:
;      REFERENCE/DOCKET NUMBER:  1151-4154
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  212-758-4800
;      TELEFAX:  212-751-6849
;  INFORMATION FOR SEQ ID NO:  45:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-100-409A-45

  Query Match             100.0%;  Score 74;  DB 3;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 0.00039;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          9 TPPAYRPPNAPIL 21


RESULT 14
US-09-701-623C-69
; Sequence 69, Application US/09701623C
; Patent No. 6811782
; GENERAL INFORMATION:
;  APPLICANT: Wang Ph.D., Chang Yi
;  TITLE OF INVENTION: PEPTIDE COMPOSITION AS IMMUNOGEN FOR THE TREATMENT OF
;  TITLE OF INVENTION:  ALLERGY
;  FILE REFERENCE: 11514153US1
;  CURRENT APPLICATION NUMBER: US/09/701,623C
;  CURRENT FILING DATE:  2000-12-01
;  PRIOR APPLICATION NUMBER: PCT/US99/13959
;  PRIOR FILING DATE: 1999-06-21
;  PRIOR APPLICATION NUMBER: 09/100,287
;  PRIOR FILING DATE: 1998-06-20
;  NUMBER OF SEQ ID NOS: 91
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 69
;   LENGTH: 21
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  synthetic
US-09-701-623C-69

  Query Match             100.0%;  Score 74;  DB 4;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 0.00039;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          9 TPPAYRPPNAPIL 21


RESULT 15
PCT-US95-13841-13
; Sequence 13, Application PC/TUS9513841
;  GENERAL INFORMATION:
;    APPLICANT:  United Biomedical Inc; Walfield, Alan M.;
;    APPLICANT:  Wang, Chang Yi
;    TITLE OF INVENTION:  Synthetic IgE Membrane Anchor
;    TITLE OF INVENTION:  Peptide Immunogens for the Treatment of Allergy
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Maria C.H. Lin
;      STREET:  345 Park Avenue
;      CITY:  New York
;      STATE:  NY
;      COUNTRY:  USA
;      ZIP:  10154
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/13841
;      FILING DATE:  25-OCT-1995
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/328,519
;      FILING DATE:  25-OCT-1994
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Lin, Maria C.H.
;      REGISTRATION NUMBER:  29,323
;      REFERENCE/DOCKET NUMBER:  1151-4117
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  212-758-4800
;      TELEFAX:  212-751-6849
;      TELEX:  421792
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
PCT-US95-13841-13

  Query Match             100.0%;  Score 74;  DB 5;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 0.00039;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          9 TPPAYRPPNAPIL 21


Search completed: September  8, 2005, 03:06:03
Job time : 43 secs
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OM protein - protein search, using sw model

Run on: September 8, 2005, 03:01:30 ; Search time 163 Seconds
(without alignments)
31.409 Million cell updates/sec

Title: US-09-647-981A-10
Perfect score: 74
Sequence: 1 TPPAYRPPNAPIL 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1774312 seqs, 393823214 residues

Total number of hits satisfying chosen parameters: 1774312

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
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10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
11: /cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
15: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
16: /cgn2_6/ptodata/1/pubpaa/US10D_PUBCOMB.pep:*
17: /cgn2_6/ptodata/1/pubpaa/US10E_PUBCOMB.pep:*
18: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
19: /cgn2_6/ptodata/1/pubpaa/US11A_PUBCOMB.pep:*
20: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
21: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
22: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	74	100.0	13	9	US-09-055-744-10	Sequence 10, Appl
2	74	100.0	13	9	US-09-839-447A-86	Sequence 86, Appl
3	74	100.0	13	10	US-09-277-074-9	Sequence 9, Appli
4	74	100.0	13	10	US-09-277-064-9	Sequence 9, Appli
5	74	100.0	13	11	US-09-788-110A-4	Sequence 4, Appli
6	74	100.0	13	13	US-10-106-487-22	Sequence 22, Appl
7	74	100.0	13	14	US-10-128-711-113	Sequence 113, App
8	74	100.0	13	14	US-10-116-118-30	Sequence 30, Appl
9	74	100.0	13	15	US-10-371-525-49	Sequence 49, Appl
10	74	100.0	13	15	US-10-371-069-49	Sequence 49, Appl
11	74	100.0	13	15	US-10-371-645-49	Sequence 49, Appl
12	74	100.0	13	15	US-10-371-260-49	Sequence 49, Appl
13	74	100.0	13	15	US-10-372-735-55	Sequence 55, Appl
14	74	100.0	13	15	US-10-369-060A-86	Sequence 86, Appl
15	74	100.0	13	15	US-10-388-337-22	Sequence 22, Appl
16	74	100.0	13	15	US-10-608-541-50	Sequence 50, Appl
17	74	100.0	13	15	US-10-182-252A-1374	Sequence 1374, Ap
18	74	100.0	13	15	US-10-333-430-63	Sequence 63, Appl
19	74	100.0	13	16	US-10-808-681-5	Sequence 5, Appli
20	74	100.0	13	17	US-10-691-125-6	Sequence 6, Appli
21	74	100.0	13	18	US-10-470-045-31	Sequence 31, Appl
22	74	100.0	13	18	US-10-470-045-52	Sequence 52, Appl
23	74	100.0	13	18	US-10-491-008A-51	Sequence 51, Appl
24	74	100.0	13	20	US-11-055-119-80	Sequence 80, Appl
25	74	100.0	14	15	US-10-371-525-124	Sequence 124, App
26	74	100.0	14	15	US-10-371-069-124	Sequence 124, App
27	74	100.0	14	15	US-10-371-645-124	Sequence 124, App
28	74	100.0	14	15	US-10-371-260-124	Sequence 124, App
29	74	100.0	16	14	US-10-106-876-3	Sequence 3, Appli
30	74	100.0	18	14	US-10-106-876-10	Sequence 10, Appl
31	74	100.0	20	9	US-09-839-447A-107	Sequence 107, App
32	74	100.0	20	15	US-10-369-060A-107	Sequence 107, App
33	74	100.0	21	8	US-08-785-997-43	Sequence 43, Appl
34	74	100.0	21	10	US-09-387-340-43	Sequence 43, Appl
35	74	100.0	21	10	US-09-386-591-43	Sequence 43, Appl
36	74	100.0	21	18	US-10-732-862A-228	Sequence 228, App
37	74	100.0	23	14	US-10-128-711-114	Sequence 114, App
38	74	100.0	26	14	US-10-128-711-115	Sequence 115, App
39	74	100.0	32	18	US-10-732-862A-227	Sequence 227, App
40	74	100.0	80	15	US-10-371-525-22	Sequence 22, Appl
41	74	100.0	80	15	US-10-371-069-22	Sequence 22, Appl
42	74	100.0	80	15	US-10-371-645-22	Sequence 22, Appl
43	74	100.0	80	15	US-10-371-260-22	Sequence 22, Appl
44	74	100.0	118	15	US-10-371-525-8	Sequence 8, Appli
45	74	100.0	118	15	US-10-371-069-8	Sequence 8, Appli

ALIGNMENTS

RESULT 1
US-09-055-744-10
; Sequence 10, Application US/09055744
; Publication No. US20010019714A1
; GENERAL INFORMATION:
; APPLICANT: Sia, Charles
; APPLICANT: Chong, Pele
; APPLICANT: Klein, Michel
; TITLE OF INVENTION: HIV-SPECIFIC CYTOTONIX T-CELL RESPONSES
; FILE REFERENCE: 1038-746
; CURRENT APPLICATION NUMBER: US/09/055,744
; CURRENT FILING DATE: 1998-04-07
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 13
; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type 1
US-09-055-744-10

Query Match 100.0%; Score 74; DB 9; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.0021;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TPPAYRPPNAPIL 13
||||||||||||
Db 1 TPPAYRPPNAPIL 13

RESULT 2
US-09-839-447A-86
; Sequence 86, Application US/09839447A
; Patent No. US20020058247A1
; GENERAL INFORMATION:

```
;  APPLICANT: Sallberg, Matti
;  TITLE OF INVENTION: SYNTHETIC PEPTIDES THAT BIND TO THE
;  TITLE OF INVENTION:  HEPATITIS B VIRUS CORE AND E ANTIGENS
;  FILE REFERENCE: TRIPEP.020CP1
;  CURRENT APPLICATION NUMBER: US/09/839,447A
;  CURRENT FILING DATE:  2001-08-09
;  PRIOR APPLICATION NUMBER: 09/556605
;  PRIOR FILING DATE: 2000-04-21
;  NUMBER OF SEQ ID NOS: 111
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 86
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Artificial Peptide
US-09-839-447A-86

  Query Match             100.0%;  Score 74;  DB 9;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 3
US-09-277-074-9
; Sequence 9, Application US/09277074
; Publication No. US20030022820A1
; GENERAL INFORMATION:
;  APPLICANT:  Sherman, Linda A.
;  TITLE OF INVENTION:  IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS
;  FILE REFERENCE:  SCR2155S
;  CURRENT APPLICATION NUMBER: US/09/277,074
;  CURRENT FILING DATE:  1999-03-26
;  PRIOR APPLICATION NUMBER:  08/355,558
;  PRIOR FILING DATE:  1994-12-14
;  PRIOR APPLICATION NUMBER:  PCT/US95/16415
;  PRIOR FILING DATE:  1995-12-14
;  NUMBER OF SEQ ID NOS:  39
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 9
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Hepatitis B virus
US-09-277-074-9

  Query Match             100.0%;  Score 74;  DB 10;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 4
US-09-277-064-9
; Sequence 9, Application US/09277064
; Publication No. US20030064916A1
; GENERAL INFORMATION:
;  APPLICANT:  Sherman, Linda A.
;  TITLE OF INVENTION:  IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS
;  FILE REFERENCE:  SCR2152S
;  CURRENT APPLICATION NUMBER: US/09/277,064
;  CURRENT FILING DATE:  1999-03-26
;  PRIOR APPLICATION NUMBER:  08/355,558
;  PRIOR FILING DATE:  1994-12-14
;  PRIOR APPLICATION NUMBER:  PCT/US95/16415
;  PRIOR FILING DATE:  1995-12-14
;  NUMBER OF SEQ ID NOS:  39
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 9
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Hepatitis B virus
US-09-277-064-9

  Query Match             100.0%;  Score 74;  DB 10;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 5
US-09-788-110A-4
; Sequence 4, Application US/09788110A
; Publication No. US20040086518A1
; GENERAL INFORMATION:
;  APPLICANT: Zanetti, Maurizio
;  TITLE OF INVENTION: A Universal Vaccine and Method for Treating Cancer Employing
;  TITLE OF INVENTION:  Telomerase Reverse Transcriptase
;  FILE REFERENCE: UCSD-07017
;  CURRENT APPLICATION NUMBER: US/09/788,110A
;  CURRENT FILING DATE:  2001-02-15
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-788-110A-4

  Query Match             100.0%;  Score 74;  DB 11;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 6
US-10-106-487-22
; Sequence 22, Application US/10106487
; Publication No. US20020164721A1
; GENERAL INFORMATION:
;  APPLICANT: FIRAT, HUSEYIN
;  APPLICANT:  LEMONNIER, FRANCOIS
;  APPLICANT:  LANGLADE-DEMOYEN, PIERRE
;  APPLICANT:  MICHEL, MARIE-LOUISE
;  TITLE OF INVENTION: DESIGN OF A POLYEPITOPIC CONSTRUCT FOR THE INDUCTION
;  TITLE OF INVENTION:  OF
;  TITLE OF INVENTION:  HLA-A2.1 RESTRICTED HIV 1 SPECIFIC CTL RESPONSES USING
;  TITLE OF INVENTION:  HHD MICE
;  FILE REFERENCE: 03495.0196 SEQUENCE LISTING
;  CURRENT APPLICATION NUMBER: US/10/106,487
;  CURRENT FILING DATE:  2002-03-27
;  PRIOR APPLICATION NUMBER: 09/675,673
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/158,356
;  PRIOR FILING DATE: 1999-10-12
;  NUMBER OF SEQ ID NOS: 41
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 22
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Hepatitis B virus
US-10-106-487-22

  Query Match             100.0%;  Score 74;  DB 13;  Length 13;
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```
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 7
US-10-128-711-113
; Sequence 113, Application US/10128711
; Publication No. US20030099634A1
;   GENERAL INFORMATION:
;        APPLICANT: VITIELLO, Maria A.
;                   CHESTNUT, Robert W.
;                   SETTE, Alessandro D.
;                   CELIS, Esteban
;                   GRAY, Howard
;        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR ELICITING
;                            CTL IMMUNITY
;        NUMBER OF SEQUENCES: 153
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Townsend and Townsend Khourie and Crew
;             STREET: Steuart Street Tower, One Market Plaza
;             CITY: San Francisco
;             STATE: California
;             COUNTRY: US
;             ZIP: 94105-1493
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/128,711
;             FILING DATE: 22-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/197,484
;             FILING DATE: 16-FEB-1994
;             APPLICATION NUMBER: US 07/935,811
;             FILING DATE: 26-AUG-1992
;             APPLICATION NUMBER: US 07/874,491
;             FILING DATE: 27-APR-1992
;             APPLICATION NUMBER: US 07/827,682
;             FILING DATE: 29-JAN-1992
;             APPLICATION NUMBER: US 07/749,568
;             FILING DATE: 26-AUG-1991
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Parmelee, Steven W.
;             REGISTRATION NUMBER: 31,990
;             REFERENCE/DOCKET NUMBER: 14137-26-4
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (206) 467-9600
;             TELEFAX: (206) 623-6793
;   INFORMATION FOR SEQ ID NO: 113:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 13 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: unknown
;             TOPOLOGY: unknown
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 113:
US-10-128-711-113

  Query Match             100.0%;  Score 74;  DB 14;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 8
US-10-116-118-30
; Sequence 30, Application US/10116118
; Publication No. US20030143672A1
; GENERAL INFORMATION:
;  APPLICANT: Tangri, Shabnam
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn
;  APPLICANT:  Fikes, John D.
;  TITLE OF INVENTION: Heteroclitic Analogs and Related Methods
;  FILE REFERENCE: 2060.0090003
;  CURRENT APPLICATION NUMBER: US/10/116,118
;  CURRENT FILING DATE:  2002-08-07
;  PRIOR APPLICATION NUMBER: US 60/166,529
;  PRIOR FILING DATE: 1999-11-18
;  PRIOR APPLICATION NUMBER: US 60/239,008
;  PRIOR FILING DATE: 2000-10-06
;  NUMBER OF SEQ ID NOS: 53
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 30
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: (HBV core)
US-10-116-118-30

  Query Match             100.0%;  Score 74;  DB 14;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
              |||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 9
US-10-371-525-49
; Sequence 49, Application US/10371525
; Publication No. US20030203869A1
; GENERAL INFORMATION:
;  APPLICANT: Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.01
;  CURRENT APPLICATION NUMBER: US/10/371,525
;  CURRENT FILING DATE:  2003-02-21
;  PRIOR APPLICATION NUMBER: US 09/311,784
;  PRIOR FILING DATE: 1999-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 49
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: residues 128-141 of HBV core antigen (HBVcore 128)
US-10-371-525-49

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
```

```
                  ||||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 10
US-10-371-069-49
; Sequence 49, Application US/10371069
; Publication No. US20030216342A1
; GENERAL INFORMATION:
;  APPLICANT: EPIMMUNE Inc.
;  APPLICANT:  Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.10
;  CURRENT APPLICATION NUMBER: US/10/371,069
;  CURRENT FILING DATE:  2003-02-21
;  PRIOR APPLICATION NUMBER: US 09/078,904
;  PRIOR FILING DATE: 1998-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 49
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: residues 128-141 of HBV core antigen (HBVcore 128)
US-10-371-069-49

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
                  ||||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 11
US-10-371-645-49
; Sequence 49, Application US/10371645
; Publication No. US20030216343A1
; GENERAL INFORMATION:
;  APPLICANT: EPIMMUNE Inc.
;  APPLICANT:  Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.11
;  CURRENT APPLICATION NUMBER: US/10/371,645
;  CURRENT FILING DATE:  2003-06-20
;  PRIOR APPLICATION NUMBER: US 09/078,904
;  PRIOR FILING DATE: 1998-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 49
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: residues 128-141 of HBV core antigen (HBVcore 128)
US-10-371-645-49

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
                  ||||||||||||||
Db          1 TPPAYRPPNAPIL 13


RESULT 12
US-10-371-260-49
; Sequence 49, Application US/10371260
; Publication No. US20030220285A1
; GENERAL INFORMATION:
;  APPLICANT: EPIMMUNE Inc.
;  APPLICANT:  Fikes, John D.
;  APPLICANT:  Hermanson, Gary G.
;  APPLICANT:  Sette, Alessandro
;  APPLICANT:  Ishioka, Glenn Y.
;  APPLICANT:  Livingston, Brian
;  APPLICANT:  Chesnut, Robert W.
;  APPLICANT:  Epimmune Inc.
;  TITLE OF INVENTION: Expression Vectors for Stimulating an
;  TITLE OF INVENTION:  Immune Response and Methods of Using the Same
;  FILE REFERENCE: 39963-20022.13
;  CURRENT APPLICATION NUMBER: US/10/371,260
;  CURRENT FILING DATE:  2003-02-21
;  PRIOR APPLICATION NUMBER: US 09/078,904
;  PRIOR FILING DATE: 1998-05-13
;  PRIOR APPLICATION NUMBER: US 60/085,751
;  PRIOR FILING DATE: 1998-05-15
;  NUMBER OF SEQ ID NOS: 463
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 49
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: residues 128-141 of HBV core antigen (HBVcore 128)
US-10-371-260-49

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          1 TPPAYRPPNAPIL 13


RESULT 13
US-10-372-735-55
; Sequence 55, Application US/10372735
; Publication No. US20030225251A1
; GENERAL INFORMATION:
;  APPLICANT: Sallberg, Matti
;  TITLE OF INVENTION: SPECIFICITY EXCHANGERS THAT REDIRECT
;  TITLE OF INVENTION:  ANTIBODIES TO A PATHOGEN
;  FILE REFERENCE: TRIPEP.7AUC4CP1
;  CURRENT APPLICATION NUMBER: US/10/372,735
;  CURRENT FILING DATE:  2003-02-21
;  PRIOR APPLICATION NUMBER: 10/234,579
;  PRIOR FILING DATE: 2002-08-30
;  PRIOR APPLICATION NUMBER: 09/839,666
;  PRIOR FILING DATE: 2001-04-19
;  PRIOR APPLICATION NUMBER: 09/532,106
;  PRIOR FILING DATE: 2000-03-21
;  PRIOR APPLICATION NUMBER: 09/246,258
;  PRIOR FILING DATE: 1999-02-08
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;  PRIOR APPLICATION NUMBER: 08/737,085
;  PRIOR FILING DATE: 1996-12-27
;  PRIOR APPLICATION NUMBER: PCT/SE95/00468
;  PRIOR FILING DATE: 1995-04-27
;  PRIOR APPLICATION NUMBER: 09/664,945
;  PRIOR FILING DATE: 2000-09-19
;  PRIOR APPLICATION NUMBER: 09/664,025
;  PRIOR FILING DATE: 2000-09-19
;  PRIOR APPLICATION NUMBER: PCT/IB01/02327
;  PRIOR FILING DATE: 2001-09-19
;  PRIOR APPLICATION NUMBER: 10/153,271
;  PRIOR FILING DATE: 2002-05-21
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 199
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 55
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Artificially Synthesized Peptides
US-10-372-735-55

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db          1 TPPAYRPPNAPIL 13


RESULT 14
US-10-369-060A-86
; Sequence 86, Application US/10369060A
; Publication No. US20030235815A1
; GENERAL INFORMATION:
;  APPLICANT: Sallberg, Matti
;  TITLE OF INVENTION: SYNTHETIC PEPTIDES THAT BIND TO THE
;  TITLE OF INVENTION:  HEPATITIS B VIRUS CORE AND E ANTIGENS
;  FILE REFERENCE: TRIPEP.020CP1C1
;  CURRENT APPLICATION NUMBER: US/10/369,060A
;  CURRENT FILING DATE:  2003-02-14
;  PRIOR APPLICATION NUMBER: 09/839,447
;  PRIOR FILING DATE: 2001-04-20
;  PRIOR APPLICATION NUMBER: 09/556,605
;  PRIOR FILING DATE: 2000-04-21
;  NUMBER OF SEQ ID NOS: 111
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 86
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Mus musculus
US-10-369-060A-86

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0021;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db          1 TPPAYRPPNAPIL 13


RESULT 15
US-10-388-337-22
; Sequence 22, Application US/10388337
; Publication No. US20040018208A1
; GENERAL INFORMATION:
;  APPLICANT: FIRAT, Huseyin
;  APPLICANT:  LEMONNIER, Francois
;  APPLICANT:  LANGLADE-DEMOYEN, Pierre
;  APPLICANT:  MICHEL, Marie-Louise
;  APPLICANT:  SUHRBIER, Andreas A
;  TITLE OF INVENTION: HYBRID OR CHIMERIC POLYNUCLEOTIDES, PROTEINS, AND
;  TITLE OF INVENTION:  COMPOSITIONS COMPRISING HEPATITIS B VIRUS SEQUENCES
;  FILE REFERENCE: 03495.0198 SEQUENCE LISTING
;  CURRENT APPLICATION NUMBER: US/10/388,337
;  CURRENT FILING DATE:  2003-03-14
;  PRIOR APPLICATION NUMBER: US/09/671,198B
;  PRIOR FILING DATE: 2000-09-28
;  PRIOR APPLICATION NUMBER: 60/156,945
;  PRIOR FILING DATE: 1999-09-30
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 22
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Hepatitis B virus
US-10-388-337-22

  Query Match             100.0%;  Score 74;  DB 15;  Length 13;
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  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TPPAYRPPNAPIL 13
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Db          1 TPPAYRPPNAPIL 13


Search completed: September  8, 2005, 03:17:07
Job time : 164 secs
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